

AVE Mission Site Survey

Costa Rica Site Survey

8-15-03

Meeting and Site Survey

1. CENAT (Centro Nacional de Alta Tecnologia) – Consortium of four national universities.

Met with CENAT to discuss AVE mission objectives, possible future missions, hangar and laboratory requirements, and joint working arrangements with the Costa Ricans. CENAT will act as the official point of contact for NASA, and will coordinate facility and other support requirements on the Costa Rican side. NASA ESPO will prepare joint working agreement with CENAT for the January AVE deployment.

POCs:

Dr. Jorge Andrés Díaz

Dr. Pedro Leon Azofefia, Director, CENAT.

2. U.S. Embassy, San Jose

Met with Embassy personnel to discuss potential upcoming NASA missions in Costa Rica. Embassy stressed the need to support joint collaboration and outreach with our Costa Rican hosts. An overflight/diplomatic clearance will be required by the beginning of November. A fund cite letter will be required for some Costa Rican expenses associated with the AVE mission.

POCs:

Andrea Borel, Science, Environment, and Technology section

Richard M. Sizemore, Financial Management Officer

3. Juan Santamaria Airport

Met with Col. Solano, Servicio de Vigilancia, to discuss availability of hangar and office space in Presidential hangar. Col. Solano offered the full cooperation of his organization to support the NASA missions. He also offered the use of his aircraft to deploy ground crew to receive planes that might be diverted from San Jose to the back-up site at Liberia.

Toured DGAC hanger and CENAT laboratory spaces, and identified basic requirements for follow-on space (detailed set of survey photos taken – see attached overview pix). Hangar and labs are in good condition, but will require thorough cleaning prior to deployment. Labs all had multiple network ports connected to a central rack. Parking

near the hanger is limited. Ramp space around the DGAC and Presidential hangars is more than adequate for the Jan 04 deployment.

Lab space layout thoughts: Additional lab/office space at rear of hangar adjacent to existing lab facility. Space could be divided into one large and one small office area. May want to consider setting up lab space on concrete slab. Electrical, lighting, air conditioning, phone lines, and network cables should be the same as the other side. Additional restroom could be created by dividing current rest room into two parts, or adding to additional space. New labs should have at least one additional set of double doors to provide access of aircraft instruments into the lab work area.

Other items for Jan 04 deployment: Overhead light fixtures need additional securing, grounding receptacles in hangar, janitorial service (once/day), phone and ISP, printer/copier/fax, local met support.

Also toured airfield and received an overview of airport operations. Airport has single east-west runway 07/25 (9882 x 151 feet) with limited taxiways, and large turnaround areas at each end of the runway (not sure of size). Elevation of airport is 3020 feet.

Other airport notes:

Daily UPS and DHL flights from Miami to San Jose.

POC:

Direccion General de Aviacion Civil Costa Rica
Luiz Camacho

4. Costa Rican Scientists

Met with Jorge Barrantes of the Costa Rican Meteorological Institute (IMCR) to discuss potential collaboration. IMCR currently has daily radiosonde launches at a location near the airport, and has the capability to launch ozonesondes if required. IMCR is using the ETA meteorological model (ETAWS 3.1 w/ 10 km resolution), the first use of this model in Latin America. Barrantes mentioned January/February is the windiest months in Costa Rica, with down-the-runway winds peaking at 50 kts (though the average is 10-20). IMCR can provide pre-flight met support (data, amps, etc.) prior to science flights.

Met with Dr. Jaime Quesada, National University, and Dr. Juan Valdez, National University of Costa Rica to present the AVE mission objectives, and discuss potential collaboration. Dr. Quesada currently maintains a few local instrumented ground sites for pollution monitoring, but doesn't expect them to be operational in the near future due to funding constraints. Initial cooperation could be to provide joint science seminars in January, and the opportunity for students to see U.S. PIs at work.

5. Lincos Design & Construction

Mtg with Lincos. Met with Lincos to discuss additional lab space in the hangar. Current lab space only adequate for ~ 40 people. Additional space would be approximately 6x12 meters divided into office and lab, and would be completed by the first week of January. Current rest room should be divided into men's and women's rest rooms.

POCs: Juan Barrios, Oliver Gomez, and Jarro Hernandez

Issues for TC4/CAMEX 2005:

- Space for more than 3 A/C. Met with Coopesa (aircraft maintenance facility) to obtain additional hangar space for other A/C. Web site: www.coopesa.com
- Power
- Conversion of other work space
- Hangar parking
- Storage location of ER-2 fuel

Local Area Info

Juan Santamaria airport located between towns of Alajuela and Santa Antonio de Belen, about 15 miles west of downtown San Jose.

Hotels

The Marriott Costa Rica is an excellent hotel with full amenities near the airport. On site are restaurants, bars, café, concierge, ATM, business center, airport shuttle, and gift shop. 248 rooms, 175 available for groups. Multiple, large meeting spaces available (consider Cabildo rooms for 2005 deployment). Rate: \$89 + tax. Optional buffet breakfast: \$10/day (request on reservation). In-room safes.

POCs: Zarah Andrade, Corporate Account Manager
Georgina Lopez, events & logistics coordinator

On site tour center available: Tam Tours. POC: Ricardo Arias, 506-293-5528.
Taxi company (minibuses available): CTT (Corporacion Transportes Turisticos), 506-298-0101, cotranstur@racsa.co.cr

Another excellent hotel option is the Courtyard by Marriott in Escazu, about 20 min from the airport. The hotel has 125 rooms (50 for groups) with free shuttle to the airport (optional taxi for \$1), restaurant meeting room, guest laundry, and in room safes. Several restaurants and a shopping mall are within walking distance.

POC: Diana De Rojas, General Manager

Other hotels close-by are the Hampton Inn near the airport, a Comfort Inn in Savannah Park, and an Intercontinental Hotel in Escazu. A less desirable back-up is Hotel Best Western Irazu, 20-30 minutes from the airport.

Restaurants

Kianti's, San Antonio del Belen, 239-1640. Great menu of local & continental meat, pasta and seafood, relaxed atmosphere, about 1 mile from Marriott, good Chilean wines.

La Casona del Mariscos, Airport. Seafood and Peruvian style food.

There is also a Rosti Pollo's chicken chain next door to the Hampton Inn. Other nearby restaurants in Escazu and San Antonio: La Luz, La Cascada (steak), El Rodeo (nice patio), Taras. In Savannah Park, look for Chiote (steak) or Piazeta, Italian.

Shopping

There are two nearby malls. International Mall is 1 km from the airport in Alajuela. It has several small shops, including souvenirs, and a large supermarket. Real Cariari Mall is about 3 km from the Marriott, and has a cinema multiplex and lots of American fast food.

Pharmacy

Farmacia Campos, about 3/4 mile from Marriott hotel. Hours?

Medical ?

General Notes on Costa Rica

- Taxes. 16.4% on rooms, 22% on food and beverage, and 10% service added to all bills. Departure tax is currently \$26 to be paid on entry to the terminal prior to check-in (U.S. government personnel with official passports do not need to pay, but need to have their exit form stamped by the immigration office in the terminal).
- Petty theft is bad and getting worse. Never leave any valuable articles unattended, especially visible inside a car. Use available in-room safes. Don't wear expensive jewelry.
 - A very popular sting in Costa Rica now is having a thief flatten your tire while you're not paying attention, and then offering to help you fix it. While you and he are busy working on the tire, his accomplice rips you off. If you get a flat tire

while in Costa Rica, do not stop on the road unless you must, and DO NOT accept assistance from strangers. Drive the car to your hotel, to a police station, or to a service station for help.

- Conversion rate as of 8-15-03 is approximately 400 *colones* to the U.S. dollar.
- Street names. In general, there are no road or street names in Costa Rica. Directions are given in terms of location with respect to local landmarks or known points (i.e., the hotel is 2 km west of the factory, south of airport). If you need to go somewhere in a car, get a map and detailed directions....getting lost is very easy.
- Time. Costa Rica stays on U.S. Central Standard Time year round.
- Newspapers. Costa Rican English-language Tico Times, published every Friday. Miami Herald Latin American edition also available.
- Traffic. Avoid or allow extra driving time during rush hours. Drive defensively as there are many aggressive drivers in the area.
- Parking. Parking “attendants” are on the street nearly everywhere you go. It is customary to give these attendants 100 colones or so (when you return) for watching your car.



Hangar Entrance Gate & Parking Area



DGAC/CENAT Hangar



Presidential Hangar



Hangar Office & Lab Space



Internal Layout & Set-up